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# NOTICE OF ALLOWANCE AND FEE(S) DUE

7590          12/19/2008

HOLLINGSWORTH & FUNK, LLC
Suite 125
8009 34th Avenue South
Minneapolis, MN 55425

| EXAMINER |
| --- |
| RUDY, ANDREW J |

| ART UNIT | PAPER NUMBER |
| --- | --- |
| 3687 | |

DATE MAILED: 12/19/2008

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| --- | --- | --- | --- | --- |
| 09/976,876 | 10/12/2001 | Anthony Rodrigo | NOKI.014PA | 2171 |

TITLE OF INVENTION: INTELLIGENT NETWORK CHARGING EDGE

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
| --- | --- | --- | --- | --- | --- | --- |
| nonprovisional | NO | $1510 | $300 | $0 | $1810 | 03/19/2009 |

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

**Complete and send this form, together with applicable fee(s), to:** **Mail** Mail Stop ISSUE FEE
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Alexandria, Virginia 22313-1450
**or Fax** (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)

_____ (Signature)

_____ (Date)

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/976,876 | 10/12/2001 | Anthony Rodrigo | NOKI.014PA | 2171 |

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|---|---|---|---|---|---|---|
| nonprovisional | NO | $1510 | $300 | $0 | $1810 | 03/19/2009 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|---|---|---|
| RUDY, ANDREW J | 3687 | 705-032000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❏ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❏ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❏ Individual ❏ Corporation or other private group entity ❏ Government

4a. The following fee(s) are submitted:

❏ Issue Fee

❏ Publication Fee (No small entity discount permitted)

❏ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❏ A check is enclosed.

❏ Payment by credit card. Form PTO-2038 is attached.

❏ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❏ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❏ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____          Date _____

Typed or printed name _____          Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
### (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 3 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 3 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

| | | Application No. | Applicant(s) |
|---|---|---|---|
| ***Notice of Allowability*** | | 09/976,876 | RODRIGO, ANTHONY |
| | | Examiner | Art Unit | |
| | | Andrew Joseph Rudy | 3687 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the 15 July 2008 Amendment*.

2. ☒ The allowed claim(s) is/are *1,2,4-19, 24 and 62-96*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All    b) ☐ Some*    c) ☐ None    of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413). Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

## DETAILED ACTION

### *Allowable Subject Matter*

1.      Claims 1-19, 24 and 62-96 are allowed.  Applicant's July 15, 2008 REMARKS, in

juxtaposition with the accompanying Amendment, are convincing.


2.      An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

        The application has been amended as follows:

        Claims 25-59 and 61 have been cancelled.

        Claims 62-96 are added as follows:


62. (New)   An apparatus, comprising:

    a processor configured with executable instructions that:

        couple one or more bridge modules to form a logical network layer between one

or more network elements providing billable services and one or more charging

elements;

        receive charging events at the one or more bridge modules, wherein the

charging events record details of the billable services; and

manage charging transactions at the network between the network elements and their respective charging elements via the one or more bridge modules through the application of rules to the charging transaction initiated by corresponding charging events, wherein managing the charging transactions comprises applying the rules to transform the charging events to a format recognizable by targeted charging elements.

63. (New)  The apparatus as in Claim 62, wherein the executable instructions further cause the apparatus to generate and transmit the charging events by the network elements providing the billable services, wherein the charging events comprise service use parameters used by the charging elements.

64. (New)  The apparatus as in Claim 62, wherein the executable instructions further:

implement an application programming interface (API) at each of the network elements providing billable services to interface each of the respective network elements to the one or more bridge modules; and

generate and transmit the charging events by the network elements providing the billable services, wherein transmitting the charging events comprises transmitting XML-formatted charging events pursuant to the API.

65. (New)  The apparatus as in Claim 62, wherein receiving charging events comprises intercepting the charging events dispatched by the network elements to the charging elements.

66. (New)  The apparatus as in Claim 62, wherein managing charging transactions comprises applying the rules to transform the charging events to a format recognizable by targeted charging elements.

67. (New)  The apparatus as in Claim 66, wherein applying the rules to transform the charging events comprises converting the charging events from a first format to a second format.

68. (New)  The apparatus as in Claim 66, wherein applying the rules to transform the charging events comprises filtering the charging events to prevent transmission of particular ones of the charging events to the charging elements.

69. (New)  The apparatus as in Claim 66, wherein applying the rules to transform the charging events comprises recalculating fields of the charging events to present the fields in units utilized in the charging elements.

70. (New)  The apparatus as in Claim 66, wherein applying the rules to transform the charging events comprises routing the charging events to multiple destinations.

71. (New)  The apparatus as in Claim 66, wherein the executable instructions further transmit the transformed charging events via interface objects corresponding to respective charging elements.


72. (New)  The apparatus as in Claim 71, wherein the executable instructions further direct the transformed charging events to the interface objects corresponding to targeted charging elements based on the rules and the transformed charging events.


73. (New)  The apparatus as in Claim 72, wherein directing the transformed charging events further comprises applying the rules to the transformed charging events to identify addresses of the interface objects corresponding to the targeted charging elements.


74. (New)  The apparatus as in Claim 62, wherein managing charging transactions comprises selecting an interface object for communicating with a corresponding charging element, wherein selecting an interface object comprises identifying one of a plurality of the interface objects as determined by object configuration rules.


75. (New)  The apparatus as in Claim 62, wherein managing charging transactions comprises performing a plurality of transaction operations with a plurality of the charging elements in a sequence dictated by the rules.

76. (New)  The apparatus as in Claim 75, wherein performing a plurality of transaction operations with a plurality of the charging elements comprises applying the rules to responsive messages from at least one of the charging elements to perform one or more of the transaction operations.

77. (New)  The apparatus as in Claim 62, wherein managing charging transactions comprises coordinating one or more communications with the charging elements to carry out the charging transaction.

78. (New)  The apparatus as in Claim 77, wherein coordinating the communications with the charging elements comprises transmitting a first call to a first charging element in response to applying the rules to the charging transaction initiated by the corresponding charging event.

79. (New)  The apparatus as in Claim 78, wherein coordinating the communications with the charging elements further comprises receiving a response to the first call from the first charging element, and transmitting a second call to a second charging element in response to applying the rules to the response to the first call.

80. (New)  The apparatus as in Claim 62, wherein the executable instructions further receive the rules at a console coupled to the primary bridge module.

81.  A computer-readable storage medium encoded with instructions that, when executed by an apparatus, perform:

coupling a plurality of bridge modules to form a logical network layer between one or more network elements providing billable services and one or more charging elements;

receiving charging events at the bridge modules, wherein the charging events record details of the billable services; and

managing charging transactions at a network between the network elements and their respective charging elements via the bridge modules through the application of rules to the charging transaction initiated by corresponding charging events, wherein each of the bridge modules is configured with a subset of the rules assigned to the services managed by that bridge module, and one of the bridge modules is designated as a primary bridge module to receive the rules and distribute the subsets of rules to the remaining bridge modules.

82. (New)  The computer-readable storage medium as in Claim 81, wherein the executable instructions further cause the apparatus to generate and transmit the charging events by the network elements providing the billable services, wherein the charging events comprise service use parameters used by the charging elements.

83. (New)  The computer-readable storage medium as in Claim 81, wherein the executable instructions further cause the apparatus to:

implement an application programming interface (API) at each of the network elements providing billable services to interface each of the respective network elements to the one or more bridge modules; and

generate and transmit the charging events by the network elements providing the billable services, wherein transmitting the charging events comprises transmitting XML-formatted charging events pursuant to the API.

84. (New)  The computer-readable storage medium as in Claim 81, wherein receiving charging events comprises intercepting the charging events dispatched by the network elements to the charging elements.

85. (New)  The computer-readable storage medium as in Claim 81, wherein managing charging transactions comprises applying the rules to transform the charging events to a format recognizable by targeted charging elements.

86. (New)  The computer-readable storage medium as in Claim 85, wherein applying the rules to transform the charging events comprises converting the charging events from a first format to a second format.

87. (New)  The computer-readable storage medium as in Claim 85, wherein applying the rules to transform the charging events comprises filtering the charging events to prevent transmission of particular ones of the charging events to the charging elements.

88. (New)  The computer-readable storage medium as in Claim 85, wherein applying the rules to transform the charging events comprises recalculating fields of the charging events to present the fields in units utilized in the charging elements.

89. (New)  The computer-readable storage medium as in Claim 85, wherein applying the rules to transform the charging events comprises routing the charging events to multiple destinations.

90. (New)  The computer-readable storage medium as in Claim 85, wherein the executable instructions further cause the apparatus to transmit the transformed charging events via interface objects corresponding to respective charging elements.

91. (New)  The computer-readable storage medium as in Claim 90, wherein the executable instructions further cause the apparatus to direct the transformed charging events to the interface objects corresponding to targeted charging elements based on the rules and the transformed charging events.

92. (New)  The computer-readable storage medium as in Claim 91, wherein directing the transformed charging events further comprises applying the rules to the transformed charging events to identify addresses of the interface objects corresponding to the targeted charging elements.

93. (New)  The computer-readable storage medium as in Claim 81, wherein managing charging transactions comprises selecting an interface object for communicating with a corresponding charging element, wherein selecting an interface object comprises identifying one of a plurality of the interface objects as determined by object configuration rules.

94. (New)  The computer-readable storage medium as in Claim 81, wherein managing charging transactions comprises performing a plurality of transaction operations with a plurality of the charging elements in a sequence dictated by the rules.

95. (New)  The computer-readable storage medium as in Claim 94, wherein performing a plurality of transaction operations with a plurality of the charging elements comprises applying the rules to responsive messages from at least one of the charging elements to perform one or more of the transaction operations.

96. (New)  The computer-readable storage medium as in Claim 81, wherein managing charging transactions comprises coordinating one or more communications with the charging elements to carry out the charging transaction.

Authorization for this examiner's amendment was given in a telephone interview

with Mr. William Ashley (Reg. No. 51,419) on October 27, 2008 and December 16,

2008.


3.      Applicant previously cancelled claims 3, 20-23 and 60.


4.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew Joseph Rudy whose telephone number is 571-

272-6789.  The examiner can normally be reached on Monday thru Friday.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew S. Gart can be reached on 571-272-3955.  The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.  Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Joseph Rudy/
Primary Examiner, Art Unit 3687